

SUB. D1

C2

p

50. (Amended) A process for preparing C₆₀ comprising:

(a) vaporizing a carbon source in the presence of an inert quenching gas under conditions effective to provide a sooty carbon product comprising C₆₀ molecules in macroscopic amounts;

(b) depositing the sooty carbon product on a collecting substrate;

(c) removing the sooty carbon product from the collecting surface; and

(d) ^{extracted} ~~recovering~~ a product [which is predominantly] comprising macroscopic amounts of C₆₀ from said sooty carbon product.

Claim 62, Line 2, delete "step".

Claim 63, Line 2, delete "step".

Claim 65, Line 2, delete "step".

g
C3

66. (Amended) The process of Claims 45 or ²³² ~~50~~ wherein the ^{elemental} carbon ~~source~~ is placed into an evacuated reactor prior to the vaporization thereof [vaporized in an evacuated reactor].

g

C4

96. (Amended) The process of Claims [84] ²³² ~~50~~ wherein the depositing step comprises collecting the sooty carbon product on a collecting surface distanced 5-10 cm from said vaporization.

C5

160. (Amended) A process for preparing a carbon allotrope comprising caged molecules consisting solely of carbon atoms which are soluble in non-polar organic solvent, said process comprising vaporizing a carbon source in the presence of an inert gas to produce a carbon vapor, quenching said vapor of carbon in said inert gas under conditions effective to nucleate and condense said vapor of carbon into a sooty carbon product containing said carbon allotrope, said allotrope being present in said sooty carbon product in amounts sufficient to be capable of extracting and recovering therefrom

D C5 D

extracted
said allotrope in solid form and ~~recovering~~ a macroscopic amount of said carbon allotrope from said sooty carbon product.

Please add Claims 181-202 as follows:

-181. A process for preparing C₆₀ comprising:

F
C
D
D
(a) vaporizing ^{elemental} ~~a carbon source~~ in the presence of an inert quenching gas under conditions effective to form a sooty carbon product comprising C₆₀ molecules, said C₆₀ molecules being present in said sooty carbon product in amounts capable of extracting ~~and recovering predominantly~~ therefrom said C₆₀ in solid form; and

(b) ^{extracting in solid form} ~~recovering~~ C₆₀ from said sooty carbon product.

182. A process of preparing a fullerene comprising:

(a) vaporizing a carbon source in the presence of an inert quenching gas under conditions effective to form a sooty carbon product comprising fullerenes, said fullerenes being present in said sooty carbon product in macroscopic amounts and

(b) ^{extracting} ~~recovering~~ macroscopic amount of said fullerene from said sooty carbon product.

D
extracted
183. The process according to Claim 182 wherein said fullerene is ~~recovered~~ in solid form.

D
extracted
184. The process according to Claim 183 wherein said fullerene ~~recovered~~ in solid form is a crystalline solid.

P
extracted
185. The process according to Claim 183 wherein said fullerene ~~recovered~~ in solid form is substantially pure solid fullerene.

P
extracted
186. The process according to Claim 183 wherein said fullerene ~~recovered~~ in solid form is substantially pure crystalline fullerene.

187. A process for preparing a fullerene comprising:

(a) vaporizing a carbon source in the presence of an inert quenching gas under conditions effective to provide a

sooty carbon product comprising macroscopic amounts of fullerenes;

(b) depositing the sooty carbon product on a collecting surface;

(c) removing the sooty carbon product from the collecting surface; and

(d) ^{extracted} ~~recovering~~ a product comprising macroscopic amounts of a fullerene from said sooty carbon product.

188. The process according to Claim 187 wherein said ^{extracted} fullerene is ~~recovered~~ in solid form.

189. The process according to Claim 188 wherein said ^{extracted} fullerene ~~recovered~~ in solid form is a crystalline solid.

190. The process according to Claim 188 wherein said ^{extracted} fullerene ~~recovered~~ in solid form is substantially pure solid fullerene.

191. The process according to Claim 189 wherein said crystalline solid is substantially pure crystalline fullerene.

192. The process according to Claim 182 or Claim 187 wherein ^{extracting} ~~recovering~~ comprises contacting the sooty carbon product with a non-polar organic solvent effective to dissolve said fullerene, said solvent being present in amounts sufficient to dissolve the fullerene present in said sooty carbon product.

193. The process according to Claim 192 wherein ^{extracting} ~~recovering~~ further comprises separating from said solvent a solid fullerene.

194. The process of Claim 187 wherein depositing comprises collecting the sooty carbon product on a collecting surface distanced 5-10 cm from said vaporization.

195. The process of Claim 182 or Claim 187 wherein the carbon source is placed into an evacuated reactor prior to the vaporization thereof.